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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/655,964	09/06/2000	David M. Singleton	TH0681N (US)	9045
23632 7590 01/07/2010 SHELL OIL COMPANY P O BOX 2463 HOUSTON, TX 772522463				
EXAMINER				
OGDEN JR, NECHOLUS				
ART UNIT		PAPER NUMBER		
1796				
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01/07/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/655,964

Applicant(s)

SINGLETON ET AL.

Examiner

Necholus Ogden, Jr.

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,6-8,11,12,70,72,73,75-77 and 79-109 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

- 5) ☐ Claim(s) _____ is/are allowed.

- 6) ☒ Claim(s) 4,6-8,11,12,70,72,73,75-77 and 79-109 is/are rejected.

- 7) ☐ Claim(s) _____ is/are objected to.

- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF-08)
Paper No(s)/Mail Date 11/09
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 11-23-2009 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 4, 6-8, 12, 70, 72, 73, 75-77, 79-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (3,786,003).
2. Hunter discloses a detergent formulation wherein said formulation comprises alcohol ethoxysulfate derived from C11-C15 alcohols which are branched at the 2 position and further said branching is methyl, ethyl, butyl, propyl, or amyl. Further, at least about 50% of the branched alcohols are beta-methyl alcohols with less amounts of the other branched -chain isomers (page 2, lines 2-69, formulas II and III).
3. Hunter lacks a specific teaching with sufficient specificity with respect to the branching proportions. However, it would have been obvious to one of ordinary skill in the art to expect similar characteristics and properties from the sulfated alcohols of Hunter because they are the same compounds but different isomers. However, absent a showing to the contrary, it has been held that a prima facie case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." In re Payne, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See In re Papesch, 315

F.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991). Moreover, compounds which are position isomers (compounds having the same radicals in physically different positions on the same nucleus) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). See also *In re May*, 574 F.2d 1082, 197 USPQ 601 (CCPA 1978) (stereoisomer *prima facie* obvious).

4. Claims -4, 6-8, 12, 70, 72, 73, 75-77, 79-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grifo (2,766,212).
5. Grifo discloses a detergent composition of poly-oxy-alkylene ether sulfates having at least 10 carbon atoms and a plurality of branched chains (page 1, lines 15-36 and claims 1-8).
6. Grifo lacks a specific teaching with sufficient specificity with respect to the branching proportions and the position of said branching. However, it would have been obvious to one of ordinary skill in the art to expect similar characteristics and properties from the sulfated alcohols of Grifo because they are the same compounds but different isomers. However, absent a showing to the contrary, it has been held that a *prima facie* case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979).

See *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991). Moreover, compounds which are position isomers (compounds having the same radicals in physically different positions on the same nucleus) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. In *re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). See also *In re May*, 574 F.2d 1082, 197 USPQ 601 (CCPA 1978) (stereoisomer *prima facie* obvious).

7. Claims 4, 6-8, 12, 70, 72, 73, 75-77, 79-109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oswald et al (5,072,057).
8. Oswald discloses the formation of alkoxyated alcohols having C8-C35 (col. 10, lines 49-69) and further teaches that alcohols have majority 2-methyl and 3-methyl branched with the rest being 2-ethyl (col. 11, lines 23-60).
9. Oswald lacks a specific teaching with sufficient specificity with respect to the branching proportions and the position of said branching. However, it would have been obvious to one of ordinary skill in the art to expect similar characteristics and properties from the sulfated alcohols of Oswald because they are the same compounds but different isomers. However, absent a showing to the contrary, it has been held that a *prima facie* case of obviousness may be made when chemical compounds have very close structural similarities and similar utilities. "An obviousness rejection based on similarity in chemical structure and function entails the motivation of one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties." *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254

(CCPA 1979). See *In re Papesch*, 315 F.2d 381, 137 USPQ 43 (CCPA 1963) and *In re Dillon*, 919 F.2d 688, 16 USPQ2d 1897 (Fed. Cir. 1991). Moreover, compounds which are position isomers (compounds having the same radicals in physically different positions on the same nucleus) are generally of sufficiently close structural similarity that there is a presumed expectation that such compounds possess similar properties. *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). See also *In re May*, 574 F.2d 1082, 197 USPQ 601 (CCPA 1978) (stereoisomer *prima facie* obvious).

10. Applicant's arguments filed 11-23-2009 have been fully considered but they are not persuasive.

11. The declaration under 37 CFR 1.132 filed 11-23-2009 is insufficient to overcome the rejection of claims 78-85 based upon *Hunter* and *Grifo* as set forth in the last Office action because: The declaration is not commensurate in scope with the claimed invention. Specifically, applicant compares Neodol-45 with a "similar" composition of *Hunter* or *Grifo*. The data is given little weight because applicant does not describe what the differences are between the tested LR-98, LR-36 and LR-37 and how it compares to the Lial 125. Moreover, the examiner is confused by the Declaration, which asserts "that there is great difference in multisebum detergency between Neodol-45, which is a material which is similar to the claimed branched alcohol sulfates, as compared to Neodol-45 alcohol sulfate,....and Lial-145 was only slightly better." First, are applicant comparing two different fractions of Neodol-45 and secondly, is Lial-145 similar to the Lial 125 as recited in WO '409?

12. An affidavit or declaration under 37 CFR 1.132 must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. In re Burckel, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979). "A comparison of the claimed invention with the disclosure of each cited reference to determine the number of claim limitations in common with each reference, bearing in mind the relative importance of particular limitations, will usually yield the closest single prior art reference." In re Merchant, 575 F.2d 865, 868, 197 USPQ 785, 787 (CCPA 1978)

Where the comparison is not identical with the reference disclosure, deviations therefrom should be explained. In re Finley, 174 F.2d 130, 81 USPQ 383 (CCPA 1949), and if not explained should be noted and evaluated, and if significant, explanation should be required. In re Armstrong, 280 F.2d 132, 126 USPQ 281 (CCPA 1960).

13. With respect to applicant's argument that Hunter and Grifo not a close structurally to the claimed compounds since they are produced by a different processes and therefore have higher quaternary content of the instant application which in turn would not have been obvious variant.

The examiner contends and respectfully disagrees because Hunter and Grifo biodegradable branched sulfates it would have been obvious to optimize the branching of the specific alcohols and optimize the branching by utilizing well-known natural feedstock as recited above in the absence of a showing to the contrary.

With respect to applicant's arguments that Oswald comprises less than 1.3 branches per molecule, the examiner contends that it would have been obvious to the

skilled artisan to optimize branching of specific alcohols by utilizing well known natural feedstock as recited above in the absence of a showing to the contrary.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Necholus Ogden, Jr. whose telephone number is 571-272-1322. The examiner can normally be reached on M-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Necholus Ogden, Jr./
Primary Examiner
Art Unit 1796

no